

***Petrophyton cinerascens* (Piper) Rydb.**

Chelan rockmat
Rosaceae (Rose family)

Status: State Endangered, USFWS Species of Concern

Rank: G1S1

General Description: Chelan rockmat is a low, mat forming perennial, with flowering stems and leaf clusters arising from a shrubby base. The narrow grayish, sparsely hairy leaves are 1/2 to 1 inch long, and 1/8 to 1/4 inches broad, broadest at a point about two-thirds of the way from the base. The 2 to 6 inch tall flowering stems have small, alternate, bract-like leaves scattered along their length. At the top of each stem are numerous flowers in a dense, cylindrical flower cluster, 1 to 2 1/2 inches long and 1/2 to 3/4 of an inch wide. Each flower has five white petals, scarcely 1/16 of an inch long, and 20 to 25 stamens, which are about twice as long as the petals. There are five styles per flower, each flower developing into a dry fruit with five compartments (follicles), about 1/8 of an inch broad, with one or two seeds per compartment.

Identification Tips: *Petrophyton cinerascens* is the only member of the genus which occurs in eastern Washington. It can be separated from other species of *Petrophyton* by its 3-nerved grayish-sericeous leaves; the number of stamens (20-25); and style length (2 mm.). *Petrophyton* can be distinguished from other genera of Rosaceae by a combination of the following characters: tight pedunculate racemes; superior ovary enclosed within the calyx; petals and styles five in number; entire, oblanceolate leaves which are persistent after withering; and a mat-forming, sub-shrubby habit.

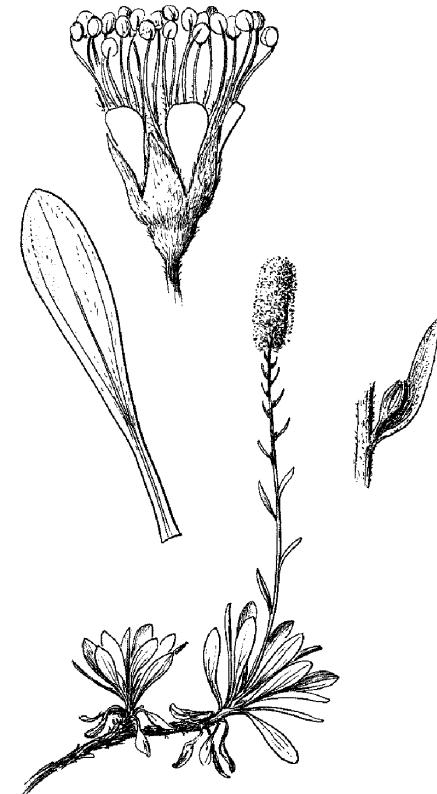
Phenology: *Petrophyton cinerascens* flowers relatively late in the summer, peaking in mid- to late August. Some individuals may begin flowering as early as late July in favorable years.

Range: Endemic to cliffs along the Columbia River between Chelan and Wenatchee, in Chelan and Douglas counties, Washington. All known populations occur within a distance of 17 miles, at elevations ranging from 800 to 1800 ft. Occurs within the transition zone between the Columbia Basin and Eastern Cascades physiographic provinces.

Habitat: The species grows in crevices and on ledges of open cliffs and rock outcrops along the Columbia River in central

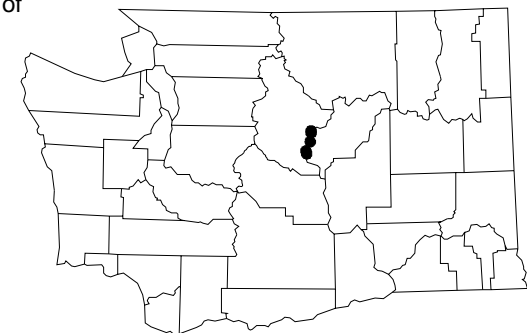
Petrophyton cinerascens

Chelan rockmat



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Known distribution of
Petrophyton
cinerascens in
Washington



● Current (1980+)
○ Historic (older than 1980)

Petrophyton cinerascens

Chelan rockmat



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Habitat (continued): Washington. The area is on the western margin of the arid Columbia Basin Region. The habitat is very sparsely vegetated and is exclusively on exposed rock cliffs and outcrops that predominantly face east or west. The species is apparently absent from nearby basalt cliffs which face predominantly south. Elevations range from 800 feet to 1800 feet.

Ecology: The species narrow ecological amplitude suggests that it lacks competitive vigor or perhaps has a nutrient requirement fulfilled only by a particular substrate.

State Status Comments: The small number of populations, the low number of individuals, and the very small range of the species are all significant factors contributing to the species status.

Inventory Needs: Additional inventory is needed, particularly along the east side of the Columbia River between Wenatchee and Orondo, Washington.

Threats and Management Concerns: The most important aspect of managing for *Petrophyton cinerascens* is ensuring that the habitat remains intact. Quarrying, or other rock removal, should be prohibited within the known populations. Highway construction and maintenance projects should be reviewed for their potential impact. If possible, the populations should be avoided when placing future powerline towers or radio facilities. Recreational use of the habitat for this species is probably restricted to hunting, which, at most, poses only a minor threat. However, other recreational activities, such as rock climbing, have the potential for greater damage. All recreational activities should be assessed for their potential for negative impacts, and management decisions made accordingly.

Comments: Spelling of generic epithet changed from *Petrophytum* to conform to *Index Nomen Genoricum*.

References:

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest, Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle. 614 pp.